

# A Crash Course in P2



DSHE Pollution Prevention Program

There are **2** Primary Ways  
of



**Preventing  
Pollution**

**Source Reduction**

**Material  
Substitution**

There are



**7**

**P2  
Techniques**



**Policy or Procedural Change**

**Equipment Modification**

**Material Substitution**

**Reuse of Materials**

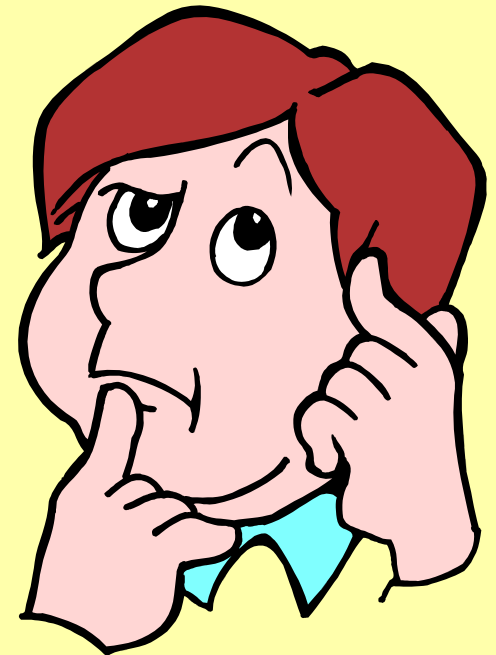
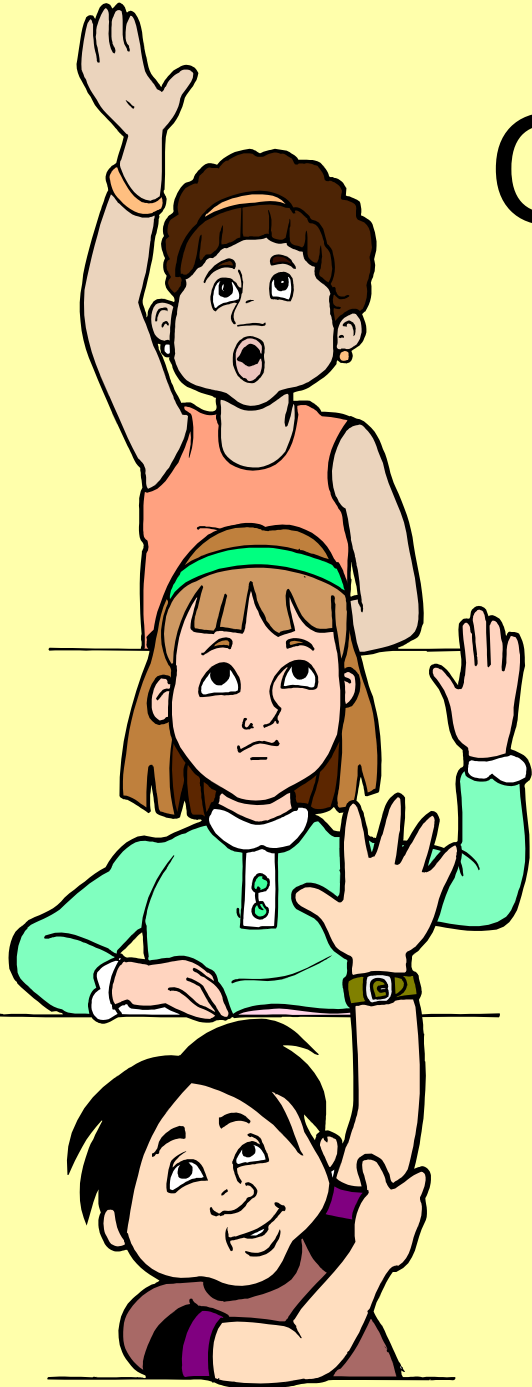
**Process Efficiency Improvement**

**Inventory Controls**

**Good**

**Housekeeping/Preventative  
Maintenance**

# Guess that P2 Technique!!!



# Equipment Modification

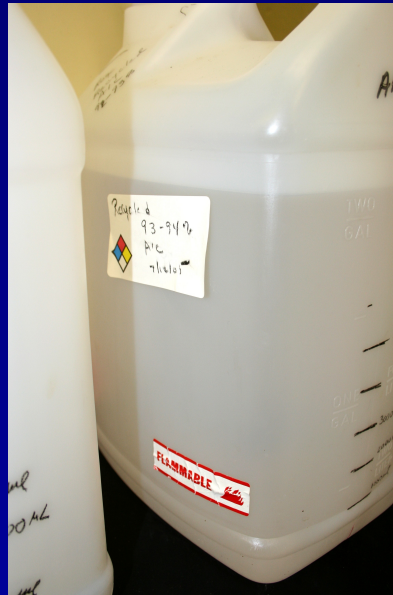
## Digital X-Rays

- ATC
- DSHE
- ECBC
- KUSAHC



# EQUIPMENT MODIFICATION

- The MRICD histology lab recycles ethanol using a distillation unit



# EQUIPMENT MODIFICATION

- DOL/EDSI replaced its solvent degreasers with aqueous parts washers.





# EQUIPMENT MODIFICATION



- DIO has replaced incandescent Exit signs with LED Exit signs. There are 40,000 exit signs.

- DIO has replaced 98% of PCB containing fluorescent light ballasts w/PCB free ballasts.



# EQUIPMENT MODIFICATION

- ARL, ATC, and Garrison large-scale painting operations employ High-Volume-Low-Pressure paint guns for higher transfer efficiency.





# MATERIAL SUBSTITUTION

MRICD installed recycled tire parking curbs





# MATERIAL SUBSTITUTION

- DOL/EDSI replaced aerosol solvents with compressed air sprayers and citrus-based cleaners for cleaning and degreasing.



# MATERIAL SUBSTITUTION

- All major activities use rechargeable batteries in their two-way radios and HITS barcode scanners.



# MATERIAL SUBSTITUTION

- ARL firing ranges replaced lead rounds with tungsten rounds in weapons



# PROCESS EFFICIENCY IMPROVEMENTS

- MRICD increased efficiency and reduced waste due to human error by using an automatic pipetting machine.



# PROCESS EFFICIENCY IMPROVEMENTS

- The golf course uses Integrated Pest Management and Best Management techniques to save money and prevent pollution.



# INVENTORY CONTROLS

The hazardous material barcode color changes every year.

Barcode#	Year Barcoded
6A010000	1996
2A010000	2002
6B010000	2006

**Put Your Inventory In Order**

**HAZMART/HITS**  
**hotline**  
**1-410-436-7480**

**AP<sub>2</sub>G**  
**Pollution**  
**PREVENTION**

**Move hazardous materials with  
oldest BARCODES to the front**

# INVENTORY CONTROLS

- ARL reduced its inventory of HM by 20% by voluntarily eliminating stagnant inventories.
- CHPPM only orders the smallest quantity deemed necessary to reduce turn-in of excess chemicals.

# INVENTORY CONTROLS

- ECBC redistributed over 600 lbs. of welding supplies and spray paints earmarked for disposal. Saving ~\$600.
- ATC reduced their inventory by 40% by creating a HM pharmacy, monitoring orders, and disposing of outdated products and chemicals



# REUSE OF MATERIALS

- In April of 2005, DIO gave 256 gallons of unused, unopened latex paint to the Loading Dock in Baltimore. Saving \$4500 in disposal costs.



# REUSE OF MATERIALS

- In 2005, DSHE facilitated the deconstruction of two large ship engines.



# REUSE OF MATERIALS

- ATC used 27,000 lbs of Black Beauty Sand Blast Media to fill potholes on its ranges instead of turning it in as waste.



# REUSE OF MATERIALS

- DOL/EDSI
  - Launder and reuse rags used in vehicle maintenance.
  - The oils recovered from laundering is used for fuel.
  - Eliminates hazardous waste.





# REUSE OF MATERIALS

- ATC and OC&S filter and recharge used antifreeze. This saves ~\$30,700/year.



# REUSE OF MATERIALS

- ATC and ARL capture silver generated by the x-ray development process.
- DENTAC captures the silver discharged during film processing.



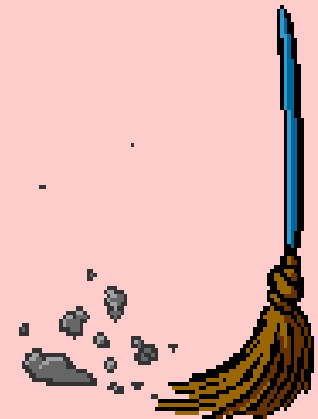
# REUSE OF MATERIALS

- ECBC sent over 10,000 batteries to be recycled saving approximately \$10,000 in hazardous waste disposal



# IMPROVED HOUSEKEEPING

- Segregate hazardous from non-hazardous waste
- Keep containers of solvents and other materials closed





# **IMPROVED HOUSEKEEPING**

- Designate storage areas for all equipment, materials, and waste
- Use drip pans for equipment cleaning
- Make regular inspections of work areas for cleanliness



# POLICY OR PROCEDURAL CHANGE

- Aberdeen Conserves Energy (ACE)
  - Initiated in 1997
  - Compressed work schedule
  - Holiday closings
  - \$1 million/year savings

# POLICY OR PROCEDURAL CHANGE

- APG has an Environmentally Preferable Paint Policy



# POLICY OR PROCEDURAL CHANGE

- Re-Nu-It Center's paint distribution policy
  - Issues only essential quantities
  - Accepts excess for redistribution



Get chemicals or products you need **FAST** and  
**FREE !!**

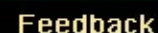


# FREEBIES

**Updated  
Weekly!!!**

**Get unneeded hazardous materials off your  
shelves and into the hands of someone who  
can use them.**





[IMCOM HQ](#) > [NE Region](#) > [APG](#) > > **[Home](#)**

Search

Weather

Voting Assistance Office - 410 278 3000 Monday thru Friday 0700-1700  
Military and Civilian Locator Service (0730-1600, Mon-Fri) - 410-306-1403  
Information Operator - 410-278-5201 (Directory Assistance)

## Safety, Health and Environment

Of Taxpayer	Transfers
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[Units/Tenants](#)[Newcomers](#)[Regions](#)[MWR](#)[APG IntraNet](#)[APG Search](#)[Disability Issues](#)[Weather](#)

organizational missions, soldiers, employees and residents of Aberdeen Proving Ground (APG). Provide overarching hazards management to the entire APG community, as well as a commitment to stewardship. Responsibilities span the breadth of regulatory compliance, natural and cultural resource conservation, environmental restoration and sustainment, fire and emergency medical services, emergency management, safety and occupational health, and surety.



### Installation Safety Division

Bldg 4304

[IMNEAPGSHS@apg.army.mil](mailto:IMNEAPGSHS@apg.army.mil)

410-306-1090/1095

### Environmental Compliance Division

Bldg 4304

410-306-2260/2259

### Environmental Conservation and Restoration Division (includes environmental cleanup program)

Bldg E4430

410-436-4429/3320

### Fire & Emergency Services

Bldg 2200

410-306-0501/0502

[fireinfo@apg.army.mil](mailto:fireinfo@apg.army.mil)



**Pollution Prevention Program**, Bldg4304, 410-306-2275



Quick Link

Preferred Paints

P2 Plan

HITS Manual

Freebies

Past AP2G Headlines

## Aberdeen Proving Ground Pollution Prevention Program

[P2 HOME](#)[POLICIES](#)[HAZ MAT](#)[EPP](#)[TRAINING](#)[RELATED LINKS](#)

### APG Awarded Integrated Pest Management (IPM) Star Certification



Over the last 20 years annual pesticide application at Aberdeen Proving Ground has been cut almost in half. Even more impressively, no pesticides have been sprayed inside the Child Development or Youth Centers since 1988.

APG was recently awarded the Integrated Pest Management (IPM) Star Certification Award for this notable achievement. APG is only the sixth installation in the Nation to be designated as IPM Star Certified.

For more information, click [here](#).

### Vanpooling



**Do you hate your commute?**  
**Do you want to save time and money?**  
**Consider vanpooling!**

**Save Money!** With gas prices increasing it affects the bottom line, your disposable income and your ability to enjoy the fruits (e.g., theater, fancy restaurant, weekend trips) of your labor. If you vanpool you'll only pay for a share





## Aberdeen Proving Ground Pollution Prevention Program

[P2 HOME](#) [POLICIES](#) [HAZ MAT](#) [EPP](#) [TRAINING](#) [RELATED LINKS](#)

### **FREEBIES**

[ALL FREEBIES  
ITEMS](#)[Chemicals](#)[Chemicals, Misc.  
Specialties.](#)[Medical, Dental,  
Vetrinary, Equip.](#)[Oils & Greases:  
Cutting, Lub.,  
Hydraulic](#)[Paints, Dopes,  
Varnishes, Stains](#)

This page updated 04/04/07.



## Aberdeen Proving Ground Pollution Prevention Program

[P2 HOME](#) [POLICIES](#) [HAZ MAT](#) [EPP](#) [TRAINING](#) [RELATED LINKS](#)

### FREEBIES

#### Medical, Dental, Veterinary, Equip.

Trade Name	Quantity	Measure	Size	Type	Bar Code	Sub-Category
GLYCINE P.A.	1	GRAM	250	PLASTIC BOTTLES OR J	7A044219	DRUGS, BIOLOGICAL, & OFFICIAL
GUANIDINE THIOCYANATE	1	GRAM	250	GLASS BOTTLES OR JUG	6A189823	DRUGS, BIOLOGICAL, & OFFICIAL
PARAFORMALDEHYDE, PRILLS 95%	1	KILOGRAM	1	GLASS BOTTLES OR JUG	3A006003	DRUGS, BIOLOGICAL, & OFFICIAL

For more information regarding these materials contact the [HAZMART](#) (410-436-7480).

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This page updated 03/14/07.



Start



Inbox - Microsoft Outlook

crashcourse

070213

Aberdeen Proving Gr...

Trusted sites



8:22 AM

Thursday





DSHE Pollution Prevention Program

# **APG's Pollution Prevention Program**

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**Maia Kaiser**

**maia.n.kaiser@us.army.mil**

**4-2273**



**[http://www.apg.army.mil/apghome/sites/directorates/AP  
2G/Index.htm](http://www.apg.army.mil/apghome/sites/directorates/AP2G/Index.htm)**